[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0287; Project Identifier MCAI-2020-01602-T]

RIN 2120-AA64

Airworthiness Directives; De Havilland Aircraft of Canada Limited (Type Certificate Previously Held by Bombardier, Inc.) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain De Havilland Aircraft of Canada Limited Model DHC-8-400 series airplanes. This proposed AD was prompted by reports of broken P-clamps on the pressure relief line and the motive flow line in the fuel tanks, and a subsequent determination that certain service information lacked instructions for maintaining appropriate clearance between certain fuel tubes and their support brackets, and may also have led to incorrect installation of certain Teflon™ sleeves. This proposed AD was also prompted by a determination that new or more restrictive airworthiness limitations are necessary. This proposed AD would require inspecting the motive flow line, vent line, and related parts, and adding support or additional clearance if necessary. This proposed AD would also require inspection, and replacement or relocation if necessary, of affected Teflon™ sleeves on the vent line, and installation of Teflon™ sleeves on the vent line at additional wing stations. This proposed AD would also require revising the existing maintenance or inspection program, as applicable, to incorporate new or more restrictive airworthiness limitations. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to https://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: 202-493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact De Havilland Aircraft of Canada Limited, Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd@dehavilland.com; Internet https://dehavilland.com. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Examining the AD Docket

You may examine the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA-2022-0287; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Joseph Catanzaro, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7366; email 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2022-0287; Project Identifier MCAI-2020-01602-T" at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to https://www.regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked

submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Joseph Catanzaro, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7366; email 9-avs-nyaco-cos@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued TCCA AD CF-2017-05R2, dated September 20, 2019 (CF-2017-05R2) (also referred to after this as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for certain De Havilland Aircraft of Canada Limited Model DHC-8-400, -401, and -402 airplanes. You may examine the MCAI in the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA-2022-0287.

This proposed AD was prompted by reports of broken P-clamps on the pressure relief line and the motive fuel line in the fuel tanks, as well as fouling conditions between the motive flow line and the collector tank partition wall in both fuel tanks. Later, certain service information designed to mitigate these issues was found to not contain instructions to support the motive flow line and vent line at wing stations -371.019 and 371.019 in the fuel tanks or to maintain appropriate clearance between the fuel tubes and their support brackets at wing stations -371.019 and -209.109 in the left-hand fuel tank and wing stations 371.019 and 209.019 in the right-hand fuel tank. Bombardier issued Modification Summaries (ModSums) to provide instructions for addressing the initial reports of inadequate clearance. Bombardier later issued revised service information to address this inadequate support and clearance on all affected airplanes. Subsequently, the manufacturer determined that certain service information was missing instructions to

relocate certain Teflon™ sleeves and certain other service information may have caused Teflon™ sleeves to be incorrectly installed on the vent line. The FAA is proposing this AD to address adverse impacts on the integrity of the electrical bonding paths throughout the fuel line, which could lead to arcing between the vent line and airplane structure, and could result in possible fuel tank ignition in the event of a lightning strike.

See the MCAI for additional background information.

Related Service Information Under 1 CFR Part 51

De Havilland Aircraft of Canada Limited has issued the following Bombardier service information.

• Bombardier Service Bulletin 84-28-18, Revision B, dated April 20, 2017, which describes procedures for increasing the hole size in the collector tank partition wall, inspecting the motive flow line for damage, and replacing the associated grommet and motive flow line.

• Bombardier Service Bulletin 84-28-19, Revision D, dated February 16, 2018, which describes procedures for replacing the affected single nut plate brackets and standoffs at the affected left-hand (LH) and right-hand (RH) wing stations on the motive flow line and pressure relief line; inspecting the motive flow line and vent line at certain wing stations in the fuel tanks to ensure that these fuel tubes are adequately supported; and inspecting the fuel tubes to verify that an appropriate clearance has been maintained between the fuel tubes and their support brackets.

• Bombardier Service Bulletin 84-28-24, dated November 27, 2017, which describes procedures for installing Teflon™ sleeves on the vent line at the specified wing stations in the LH and RH fuel tanks, inspecting the Teflon™ sleeve installation on the vent line at those wing stations in the LH and RH fuel tanks, and repositioning the Teflon™ sleeves.

• Bombardier Service Bulletin 84-28-25, dated November 27, 2017, which describes procedures for inspecting the Teflon™ sleeve installation on the vent line in the LH and RH fuel tanks for correct installation and damage, and replacing and repositioning the Teflon™ sleeves.

De Havilland Aircraft of Canada Limited has also issued the following Bombardier service information, which describes procedures for replacing the affected single nut plate brackets and standoffs on the motive flow line and vent line at LH and RH wing stations. These documents are distinct since they apply to different airplane configurations.

• Bombardier Repair Drawing 8/4-28-018, Issue 1, dated October 30, 2017.

• Bombardier Repair Drawing 8/4-28-018, Issue 2, dated June 12, 2018.

• Bombardier Repair Drawing 8/4-28-018, Issue 3, dated June 21, 2018.

• Bombardier Repair Drawing 8/4-28-018, Issue 4, dated July 27, 2018.

De Havilland Aircraft of Canada Limited has also issued the following Bombardier service information, which describes fuel systems limitations. These documents are distinct because they apply to different airplane configurations.

• (Bombardier) Q400 Dash 8 Temporary Revision (TR) ALI-0192, dated April 24, 2018, to Section 4 – 28 Fuel System Limitation, of Part 2, of the Bombardier Q400 Dash 8 Maintenance Requirements Manual (MRM), PSM 1-84-7.

• (Bombardier) Q400 Dash 8 TR ALI-0193, dated April 24, 2018, to Section 5 – 00 Critical Design Configuration Control Limitations, of the Bombardier Q400 Dash 8 MRM, PSM 1-84-7.

De Havilland Aircraft of Canada Limited has also issued the following Bombardier service information, which describes new or more restrictive airworthiness limitations for fuel tank systems. These documents are distinct because they apply to different airplane configurations.

• (Bombardier) Q400 Dash 8 Airplane Maintenance Manual (AMM) TR 28-145, dated November 21, 2017.

• (Bombardier) Q400 Dash 8 AMM TR 28-146, dated November 21, 2017.

• (Bombardier) Q400 Dash 8 AMM TR 28-147, dated November 21, 2017.

• (Bombardier) Q400 Dash 8 AMM TR 28-148, dated November 24, 2017.

• (Bombardier) Q400 Dash 8 AMM TR 28-149, dated November 27, 2017.

• (Bombardier) Q400 Dash 8 Maintenance Task Card Manual (MTCM) Maintenance Task Card 000-28-520-704 (Config A01), Detailed Inspection of the Teflon™ Sleeve on the Fuel Tank Vent Line (LH), Revision 42, Amendment 0002, dated November 21, 2017.

• (Bombardier) Q400 Dash 8 MTCM Maintenance Task Card 000-28-620-704 (Config A01), Detailed Inspection of the Teflon™ Sleeve on the Fuel Tank Vent Line (RH), Revision 42, Amendment 0002, dated November 21, 2017.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI and service information referenced above. The FAA is proposing this AD because the FAA evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Proposed AD Requirements in this NPRM

This proposed AD would require accomplishing the actions specified in the service information already described. This proposed AD would allow using Bombardier Repair Drawing 8/4-28-018 as a method of compliance for the actions required by paragraph (h)(2) of this proposed AD, provided the replacement of the affected single nut plate brackets and standoffs on the motive flow line, vent line, pressure relief line, and scavenge line at LH and RH wing stations Yw ± 209.019, Yw ± 317.019, and Yw ± 371.019, is also done.

This proposed AD would also require revising the existing maintenance or inspection program, as applicable, to incorporate new or more restrictive airworthiness limitations for fuel tank systems.

This proposed AD would require revisions to certain operator maintenance documents to include new actions (e.g., inspections) and Critical Design Configuration Control Limitations (CDCCLs). Compliance with these actions and CDCCLs is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by this proposed AD, the operator may not be able to accomplish the actions described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (n)(1) of this proposed AD.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 52 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs for required actions*

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Up to 93 work-hours X $85 per hour = Up to $7,905	Up to $7,862	Up to $15,767	Up to $819,884

*Table does not include estimated costs for revising the maintenance or inspection program.

The FAA has determined that revising the maintenance or inspection program takes an average of 90 work-hours per operator, although the FAA recognizes that this number may vary from operator to operator. In the past, the FAA has estimated that this action takes 1 work-hour per airplane. Since operators incorporate maintenance or inspection program changes for their affected fleet(s), the FAA has determined that a per-operator estimate is more accurate than a per-airplane estimate. Therefore, the FAA estimates the total cost per operator to be $7,650 (90 work-hours x $85 per work-hour).

The FAA has received no definitive data on which to base the cost estimates for the on-condition actions specified in this proposed AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

De Havilland Aircraft of Canada Limited (Type Certificate Previously Held by Bombardier, Inc.): Docket No. FAA-2022-0287; Project Identifier MCAI-2020-01602-T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to De Havilland Aircraft of Canada Limited (type certificate previously held by Bombardier, Inc.) Model DHC-8-400, -401, and -402 airplanes, certificated in any category, serial numbers (S/Ns) 4001, 4003, and subsequent.

(d) Subject

Air Transport Association (ATA) of America Code 28, Fuel System; and 05, Time Limits/Maintenance Checks.

(e) Unsafe Condition

This AD was prompted by reports of broken P-clamps on the pressure relief line and the motive flow line in the fuel tanks, and a subsequent determination that certain service information lacked instructions for maintaining appropriate clearance between certain fuel tubes and their support brackets, and may also have led to incorrect installation of certain Teflon™ sleeves. The FAA is issuing this AD to address adverse impacts on the integrity of the electrical bonding paths throughout the fuel line, which could lead to arcing between the vent line and airplane structure, and could result in possible fuel tank ignition in the event of a lightning strike.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Definition

For the purposes of this AD, "prohibited tasks" are defined as any task identified in paragraph (l) of this AD and any procedure or task that specifies fuel tank access using non-manufacturer-approved procedures.

(h) Modifications

(1) For airplanes having S/N 4001 and 4003 through 4525 inclusive: Within 6,000 flight hours or 36 months after the effective date of this AD, whichever occurs first, increase the hole size in the collector tank partition wall, inspect the motive flow line for damage, and replace the associated grommet and motive flow line, in accordance with paragraph 3.B. of the Accomplishment Instructions of Bombardier Service Bulletin 84-28-18, Revision B, dated April 20, 2017.

(2) For airplanes having S/N 4001 and 4003 through 4533 inclusive, on which Bombardier Service Bulletin 84-28-19, dated August 16, 2016; or Revision A, dated November 4, 2016, has not been done: Within 6,000 flight hours or 36 months after the effective date of this AD, whichever occurs first, replace the affected single nut plate brackets and standoffs at the affected left-hand (LH) and right-hand (RH) wing stations on the motive flow line and pressure relief line, in accordance with paragraphs 3.B. and 3.C. of Bombardier Service Bulletin 84-28-19, Revision D, dated February 16, 2018.

(3) Accomplishing Bombardier Repair Drawing 8/4-28-018, Issue 1, dated October 30, 2017; Issue 2, dated June 12, 2018; Issue 3, dated June 21, 2018; or Issue 04, dated July 27, 2018, is an alternative method of compliance (AMOC) only for the replacement of the affected single nut plate brackets and standoffs on the motive flow line and vent line at LH and RH wing stations Yw ± 209.019 and Yw ± 317.019 required by paragraph (h)(2) of this AD.

(4) Accomplishing Bombardier Repair Drawing 8/4-28-018, Issue 1, dated October 30, 2017; Issue 2, dated June 12, 2018; Issue 3, dated June 21, 2018; or Issue 04,

dated July 27, 2018, prior to the effective date of this AD, along with the replacement of the affected single nut plate brackets and standoffs on the motive flow line, vent line, pressure relief line, and scavenge line at LH and RH wing stations Yw ± 209.019, Yw ± 317.019, and Yw ± 371.019, is an acceptable method of compliance for the actions required by paragraph (h)(2) of this AD.

(5) For airplanes having S/N 4001 and 4003 through 4533 inclusive, on which Bombardier Service Bulletin 84-28-19, dated August 16, 2016; or Revision A, dated November 4, 2016, has been done: Within 6,000 flight hours or 36 months after the effective date of this AD, whichever occurs first, inspect the motive flow line and vent line at wing stations -371.019 and 371.019 in the LH and RH fuel tanks, respectively, to ensure that these fuel tubes are adequately supported, and inspect the fuel tubes to verify that an appropriate clearance has been maintained between the fuel tubes and their support brackets, in accordance with paragraph 3.B., step (13), and paragraph 3.C., of Bombardier Service Bulletin 84-28-19, Revision D, dated February 16, 2018.

(6) For airplanes having S/N 4001 and 4003 through 4572 inclusive: Within 8,000 flight hours or 48 months after the effective date of this AD, whichever occurs first, install Teflon™ sleeves on the vent line at wing stations Yw ± 209.019 and Yw ± 371.019 in the LH and RH fuel tanks, inspect the Teflon™ sleeve installation on the vent line at wing stations Yw ± 317.019 in the LH and RH fuel tanks, and if any sleeve is incorrectly installed, reposition the Teflon™ sleeves before further flight, in accordance with paragraphs 3.B. and 3.C. of the Accomplishment Instructions of Bombardier Service Bulletin 84-28-24, dated November 27, 2017.

(7) Prior to accomplishment of the actions required by paragraph (h)(6) of this AD, the applicable actions specified in paragraph (h)(2) or (5) of this AD must be done. Accomplishment of Bombardier Modification Summary (ModSum) 4Q113904 on an

airplane prior to the effective date of this AD is acceptable for compliance with this paragraph.

(8) For airplanes having S/N 4001 and 4003 through 4575 inclusive: Within 8,000 flight hours or 48 months after the effective date of this AD, whichever occurs first, inspect the Teflon™ sleeve installation on the vent line in the LH and RH fuel tanks for correct installation and damage, and if the sleeves are incorrectly installed or damage is found, before further flight, replace and reposition the Teflon™ sleeves, as applicable, in accordance with paragraphs 3.B. and 3.C. of the Accomplishment Instructions of Bombardier Service Bulletin 84-28-25, dated November 27, 2017.

(9) Prior to accomplishment of the actions required by paragraph (h)(8) of this AD, the applicable actions specified in paragraph (h)(2) or (5) of this AD must be done. Accomplishment of Bombardier ModSum 4Q113904 on an airplane prior to the effective date of this AD is acceptable for compliance with this paragraph.

(i) Verification and Rework for Existing Maintenance Program

(1) For airplanes having S/N 4001 and 4003 through 4575 inclusive, on which the actions required by paragraph (h)(6) or (8) of this AD have been done before the effective date of this AD, or that have complied with paragraph (m)(4) of this AD: Within 60 days after the effective date of this AD, review the airplane maintenance records to confirm if any of the prohibited tasks (defined in paragraph (g) of this AD) were accomplished during or after compliance with paragraph (h)(6) or (8) of this AD or paragraph (m)(4) of this AD.

(i) If any of the prohibited tasks were accomplished during or after compliance with paragraph (h)(6) or (m)(4) of this AD, or if it cannot be conclusively confirmed that they were not accomplished during or after compliance with paragraph (h)(6) or paragraph (m)(4) of this AD: Within 8,000 flight hours or 48 months after the effective

date of this AD, whichever occurs first, do the actions required by paragraph (h)(6) of this AD and, as applicable, comply with the requirements of paragraph (h)(7) of this AD.

(ii) If any of the prohibited tasks were accomplished during or after compliance with paragraph (h)(8) of this AD, or if it cannot be conclusively confirmed that they were not accomplished during or after compliance with paragraph (h)(8) of this AD: Within 8,000 flight hours or 48 months after the effective date of this AD, whichever occurs first, do the actions required by paragraph (h)(8) of this AD and, as applicable, comply with the requirements of paragraph (h)(9) of this AD.

(2) For airplanes having S/N 4573 and subsequent, with an airplane date of manufacture, as identified on the identification plate of the airplane, dated before the effective date of this AD: Within 60 days after the effective date of this AD, review the airplane maintenance records to confirm if any of the prohibited tasks (defined in paragraph (g) of this AD) were accomplished on or after the airplane date of manufacture. If any of the prohibited tasks were accomplished on or after the airplane date of manufacture, or if it cannot be conclusively confirmed that they were not accomplished on or after the airplane date of manufacture, within 8,000 flight hours or 48 months after the effective date of this AD, whichever occurs first, obtain and follow instructions for rework using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or De Havilland Aircraft of Canada Limited's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(j) Maintenance or Inspection Program Revision

For all airplanes: Within 30 days after the effective date of this AD, revise the existing maintenance or inspection program, as applicable, to incorporate the information specified in (Bombardier) Q400 Dash 8 Temporary Revision (TR) ALI-0192 and TR ALI-0193, both dated April 24, 2018, into Section 4 – 28 Fuel System Limitation, or

Section 5 – 00 Critical Design Configuration Control Limitations, as applicable, of Part 2, of the Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7. The initial compliance time for doing the tasks in (Bombardier) Q400 Dash 8 TR ALI-0192, dated April 24, 2018, is at the applicable time specified in paragraph (j)(1) or (2) of this AD, whichever occurs later:

(1) Prior to the accumulation of 18,000 total flight cycles or within 108 months since issuance of the original airworthiness certificate or original export certificate of airworthiness, whichever occurs first.

(2) Within 90 days after the effective date of this AD.

(k) No Alternative Actions, Intervals, or Critical Design Configuration Control Limitations (CDCCLs)

After the existing maintenance or inspection program has been revised as required by paragraph (j) of this AD, no alternative actions (e.g., inspections), intervals, or CDCCLs may be used unless the actions, intervals, and CDCCLs are approved as an AMOC in accordance with the procedures specified in paragraph (n)(1) of this AD.

(l) Maintenance Task Prohibitions

For all airplanes: As of the effective date of this AD, comply with the prohibitions specified in paragraphs (l)(1) and (2) of this AD.

(1) It is prohibited to use the Bombardier airplane maintenance manual (AMM) tasks identified in paragraphs (l)(1)(i) through (v) of this AD, which are specified in the Bombardier Q400 Dash 8 AMM, PSM 1-84-2, Revision 59 dated October 5, 2017, or earlier revisions of these tasks. TRs including these AMM tasks, dated November 27, 2017, or earlier, are also prohibited for use except as specified in paragraph (l)(1)(i) through (v) of this AD.

(i) Task 28-10-00-280-806 Detailed Inspection of the Teflon™ Sleeve on the Fuel Tank Vent Line, LH and RH (FSL#284000-406), with the exception of (Bombardier) Q400 Dash 8 AMM TR 28-145, dated November 21, 2017.

(ii) Task 28-12-06-000-801 Removal of the Outboard Vent Line, with the exception of (Bombardier) Q400 Dash 8 AMM TR 28-146, dated November 21, 2017.

(iii) Task 28-12-06-400-801 Installation of the Outboard Vent Line, with the exception of (Bombardier) Q400 Dash 8 AMM TR 28-147, dated November 21, 2017.

(iv) Task 28-12-01-000-801 Removal of the Inboard Vent Line, with the exception of (Bombardier) Q400 Dash 8 AMM TR 28-148, dated November 24, 2017.

(v) Task 28-12-01-400-801 Installation of the Inboard Vent Line, with the exception of (Bombardier) Q400 Dash 8 AMM TR 28-149, dated November 27, 2017.

(2) It is prohibited to use the Bombardier Q400 Dash 8 Maintenance Task Card Manual (MTCM) task cards identified in paragraphs (l)(2)(i) and (ii) of this AD that are specified in the Bombardier Q400 Dash 8 MTCM, PSM 1-84-7TC, Revision 42 dated November 5, 2017, or earlier revisions or amendments of these task cards. MTCM task card revisions or amendments dated November 21, 2017, or earlier, are also prohibited for use, except as specified in paragraphs (l)(2)(i) and (ii) of this AD.

(i) Bombardier Q400 Dash 8 MTCM Maintenance Task Card 000-28-520-704 (Config A01), Detailed Inspection of the Teflon™ Sleeve on the Fuel Tank Vent Line (LH), with the exception of (Bombardier) Q400 Dash 8 MTCM Maintenance Task Card 000-28-520-704 (Config A01), Detailed Inspection of the Teflon™ Sleeve on the Fuel Tank Vent Line (LH), Revision 42, Amendment 0002, dated November 21, 2017.

(ii) Bombardier Q400 Dash 8 MTCM Maintenance Task Card 000-28-620-704 (Config A01), Detailed Inspection of the Teflon™ Sleeve on the Fuel Tank Vent Line (RH), with the exception of (Bombardier) Q400 Dash 8 MTCM Maintenance Task Card 000-28-620-704 (Config A01), Detailed Inspection of the Teflon™ Sleeve on the Fuel Tank Vent Line (RH), Revision 42, Amendment 0002, dated November 21, 2017.

(m) Credit for Previous Actions

(1) This paragraph provides credit for actions required by paragraph (h)(1) of this

AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 84-28-18, dated April 20, 2016; or Revision A, dated November 14, 2016.

(2) This paragraph provides credit for actions required by paragraph (h)(2) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 84-28-19, Revision B, dated July 28, 2017, or Revision C, dated September 1, 2017.

(3) This paragraph provides credit for actions required by paragraph (h) (5) of this AD, if those actions were performed before the effective date of this AD using paragraphs 3.A. and 3.C and paragraph 3.B., step (13) of Bombardier Service Bulletin 84-28-19, Revision B, dated July 28, 2017, or Revision C, dated September 1, 2017

(4) This paragraph provides credit for actions required by paragraph (h)(6) of this AD, if, before the effective date of this AD, the ModSums identified in paragraph (m)(4)(i), (ii), or (iii) of this AD were incorporated, and provided the conditions identified in figure 1 to paragraph (m)(4) of this AD have been met.

Figure 1 to paragraph (m)(4) – *Conditions for ModSum Credit*

Condition 1	It can be conclusively confirmed that none of the prohibited tasks (defined in paragraph (g) of this AD) were performed during or after the incorporation of any of the applicable modsums identified in paragraphs (m)(4)(i) through (iii) of this AD.
Condition 2	It can be conclusively confirmed that Bombardier Service Bulletin 84-28-19 or Bombardier ModSum 4Q113904 (any revision) was incorporated prior to the incorporation of any of the applicable modsums identified in paragraphs (m)(4)(i) through (iii) of this AD.
Condition 3	It can be conclusively confirmed that Bombardier ModSum IS4Q2800023 (Revisions A, B, C, D, E, F, G, H, and J), Bombardier ModSum IS4Q2800030 (Revisions A and B), Bombardier ModSum IS4Q2800025 (Revisions A, B, C, D, and E), and Bombardier ModSum IS4Q2800027 (Revisions A and B) were not incorporated during or after the actions required by paragraph (h)(8) of this AD.

(i) Incorporation of both a modsum identified in paragraph (m)(4)(i)(A) of this AD and a modsum identified in paragraph (m)(4)(i) (B) of this AD.

(A) One of the modsums identified in paragraphs (m)(4)(i)(A)(*1*) through (*9*) of this AD.

(*1*) Bombardier ModSum IS4Q2800023, Revision A, dated February 7, 2017.

(*2*) Bombardier ModSum IS4Q2800023, Revision B, dated April 11, 2017.

(*3*) Bombardier ModSum IS4Q2800023, Revision C, dated August 30, 2017.

(*4*) Bombardier ModSum IS4Q2800023, Revision D, dated October 11, 2017.

(*5*) Bombardier ModSum IS4Q2800023, Revision E, dated October 19, 2017.

(*6*) Bombardier ModSum IS4Q2800023, Revision F, dated October 20, 2017.

(*7*) Bombardier ModSum IS4Q2800023, Revision G, dated November 24, 2017.

(*8*) Bombardier ModSum IS4Q2800023, Revision H, dated November 29, 2017.

(*9*) Bombardier ModSum IS4Q2800023, Revision J, dated December 12, 2017.

(B) One of the modsums identified in paragraphs (m)(4)(i)(B)(*1*) through (*5*) of this AD.

(*1*) Bombardier ModSum IS4Q2800025, Revision A, dated October 20, 2017.

(*2*) Bombardier ModSum IS4Q2800025, Revision B, dated November 3, 2017.

(*3*) Bombardier ModSum IS4Q2800025, Revision C, dated November 21, 2017.

(*4*) Bombardier ModSum IS4Q2800025, Revision D, dated November 23, 2017.

(*5*) Bombardier ModSum IS4Q2800025, Revision E, dated November 29, 2017.

(ii) Incorporation of both a modsum identified in paragraph (m)(4)(ii)(A) of this AD and a modsum identified in paragraph (m)(4)(ii)(B) of this AD.

(A) Bombardier ModSum IS4Q2800030, Revision A, dated November 3, 2017; or Bombardier ModSum IS4Q2800030, Revision B, dated November 21, 2017.

(B) One of the modsums identified in paragraphs (m)(4)(ii)(B)(*1*) through (*5*) of this AD.

(*1*) Bombardier ModSum IS4Q2800025, Revision A, dated October 20, 2017.

(*2*) Bombardier ModSum IS4Q2800025, Revision B, dated November 3, 2017.

(*3*) Bombardier ModSum IS4Q2800025, Revision C, dated November 21, 2017.

(*4*) Bombardier ModSum IS4Q2800025, Revision D, dated November 23, 2017,

(*5*) Bombardier ModSum IS4Q2800025, Revision E, dated November 29, 2017.

(iii) Incorporation of a modsum identified in paragraphs (m)(4)(iii)(A) through (C) of this AD.

(A) Bombardier ModSum IS4Q2800027, Revision A, dated October 27, 2017.

(B) Bombardier ModSum IS4Q2800027, Revision B, dated November 9, 2017.

(C) Bombardier ModSum IS4Q2800027, Revision C, dated November 15, 2017.

(n) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or TCCA; or De Havilland Aircraft of Canada Limited's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(o) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) TCCA

AD CF-2017-05R2, dated September 20, 2019, for related information. This MCAI may be found in the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2022-0287.

(2) For more information about this AD, contact Joseph Catanzaro, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7366; email 9-avs-nyaco-cos@faa.gov.

(3) For service information identified in this AD, contact De Havilland Aircraft of Canada Limited, Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd@dehavilland.com; Internet https://dehavilland.com. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued on March 15, 2022.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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